STATE CORONER'S COURT
OF NEW SOUTH WALES

Inquest:	**Inquest into the death of Kenneth Mawby**
Hearing dates:	**24-26 February 2014; 27-30 October 2014**
Date of findings:	**18 December 2014**
Place of findings:	**State Coroner's Court, Glebe**
Findings of:	**Deputy State Coroner H.C.B. Dillon**
Catchwords:	**CORONERS** – ***Cause and manner of death*** – Suicide of patient following Deep Brain Stimulation ("**DBS**") procedure for Parkinson's disease – Whether DBS was causally linked to patient's suicide – Whether patient and family appropriately informed of potential risks of procedure – Whether patient appropriately followed up following procedure – Whether there were systemic failures – Steps taken to improve management of DBS patients – Recommendations – Referral of clinician to Queensland Health Ombudsman

File number:	**2009/467640**
Representation:	Mr J Downing (Counsel Assisting) instructed by Ms M Heris (Crown Solicitor's Office) Ms S Beckett and Mr W Hunt instructed by Mr W de Mars and Ms J Grix (Legal Aid Commission) for the Mawby family Ms K Burke instructed by Ms D Usback (HWL Ebsworth) for Prof P Silburn Mr M Lynch instructed by Ms L Mallon (Ashurst) for Dr T Coyne Mr G Gregg instructed by Ms A Cran (MDA National) by for Dr R Marsh Mr S Barnes instructed by Mr A Davey (Unsworth Legal) for Dr J O'Sullivan Ms Farr instructed by Ms S Read (Minter Ellison) for Wesley Hospital (UnitingCare Health)
Findings:	I find that Kenneth Mawby died at Lismore, New South Wales on 5 January 2009 by hanging himself while suffering from a mood disorder in the nature of delirium causing behavioural changes including impulsivity following Deep Brain Stimulation ("**DBS**") surgery on 19 November 2008. I also find that this mood disorder persisted from about 21 November 2008 to the date of his death and was more likely than not to have been due in significant but unquantifiable measure to the DBS he was receiving, in combination with the medication he was taking.

Recommendations:	(i) I recommend that the Asia-Pacific Centre for Neuromodulation / St Andrew's War Memorial Hospital Model of Care Flow Chart ("**Model of Care Flow Chart**") be amended so as to provide that the treating neurologist (in consultation with the neurosurgeon, neuropsychiatrist and DBS nurses) approve the patient for discharge; (ii) I recommend that the Model of Care Flow Chart be amended so as to provide that it is the responsibility of the DBS nurses (employed by Neurosciences Queensland) to ensure that prior to discharge, specific follow-up appointments with medical practitioners nominated by the treating neurologist to provide follow-up care are made, specific information is given to the patient and family about the follow-up arrangements and all necessary records are provided to those that will provide follow up care; (iii) I recommend that a checklist be developed by Neurosciences Queensland for use at St Andrew's War Memorial Hospital, to be completed by the DBS nurses, to ensure that the steps identified in sub-paragraph (ii) are all attended to prior to discharge; (iv) I recommend that Neurosciences Queensland and the St Andrew's War Memorial Hospital establish a system to ensure that a copy of the completed checklist be provided to the hospital for inclusion in its patient records; and (v) I recommend that a card be developed by Neurosciences Queensland for use at St Andrew's War Memorial Hospital, for provision to DBS patients on discharge, setting out contact numbers for the DBS nurses, the neurologist, the neurosurgeon, the neuropsychiatrist and Medtronic, so that patients and their families know whom to contact in the event of a problem.

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REASONS FOR DECISION

Introduction

1. This is an inquest into the death of Mr Kenneth Gregory Mawby, known to his family and friends as "Ken". Mr Mawby died on 5 January 2009 at his home in Lismore. His death was reported to the coroner because he had taken his own life. But his death was also reportable to the coroner because it occurred soon after he had had a health-related procedure, Deep Brain Stimulation ("**DBS**"), for the relief of the symptoms of Parkinson's disease, raising the question whether there was a causal connection between the two events. Suicide, needless to say, is not an expected outcome of DBS.

2. Mr Mawby was born on 14 February 1949 and in the latter years of his life lived in Lismore, New South Wales. He was a dental prosthetist and also a keen musician with a particular love of the guitar. He was married to Cheri Mawby and had two adult sons, Paris and Adam. By all accounts, he was a gentle, kind, mild-mannered man, much loved by his family and his circle of friends.

3. His death was not only a heavy blow for the family, as deaths of good people always are, but it was deeply unsettling for them because of the circumstances. Suicide is almost always a tragedy but, in this case, the possible connection between Mr Mawby's death and the DBS treatment he had received shortly before it, made his death all the more confusing and devastating for his family.

The coroner's function

4. A coroner's primary function under the *Coroners Act 2009* is to make findings as to:

   - The identity of the deceased person;
   - The date and place of that person's death; and
   - The manner – or circumstances – and cause of that person's death.

5. There is no controversy in this case as to identity, date or place of death. The immediate physical cause of Mr Mawby's death is also clear. The primary question to be investigated in this case is how his death came about.

6. On the evidence available to me, before the DBS procedure was performed, Mr Mawby was not deeply depressed nor was there evidence of him suffering from suicidal ideation. Following the procedure, however, his behaviour was at times erratic – not in itself an unusual short-term adjustment problem. His suicide was, however, entirely unexpected and raises questions whether the DBS

procedure, including the post-operative measures that followed brain surgery, was causally implicated and, if so, how and to what extent.

7. It has been necessary, under the umbrella of that wider question, to explore a number of other issues. Before the hearing commenced, an issues list was circulated to interested parties outlining the particular questions that I proposed to explore. As is often the case in litigation, as the evidence unfolded, only a small number of issues remained significantly controversial.

8. In essence, the real issues can be distilled to the following questions:

   (a) What information should Mr Mawby and his family have been given during the pre-admission phase of the DBS process?

   (b) Did he receive appropriate care in hospital?

   (c) Whose patient was he on discharge?

   (d) What went wrong with the post-discharge plan?

   (e) Did the DBS treatment contribute to Mr Mawby's untimely death?

   Unfortunately, it has also been necessary to consider whether I should refer a complaint concerning Professor Peter Silburn's care and management of Mr Mawby to the Queensland Health Ombudsman for further investigation.

Nature of an inquest

9. An inquest is different from more familiar court cases in that it is not an 'adversarial' process. It is an inquiry. Counsel Assisting does not appear as a prosecutor and an important aspect of his or her role is to remain impartial, and focused on fairly inquiring into the evidence and following that evidence. The aim of these proceedings has been to seek a truthful, frank and full account of the decisions that were made about the care and management of Mr Mawby before and after his DBS surgery. For that reason, unlike criminal or civil proceedings, the ordinary rules of evidence do not apply in a coronial inquest.[1] Parties are afforded natural justice, or procedural fairness, but there is no right to make objections based on technical rules of evidence or the provisions of the NSW *Evidence Act*.

10. The coronial process is not directed at finding a scapegoat or apportioning blame, but rather to assisting the coroner uncover those factors that contributed to the death in question. That said, if human error or systemic failure due to human mismanagement is revealed by the evidence, and is relevant to a proper understanding of the circumstances that resulted in a sudden and unexpected death, a coroner has a duty to make those findings.

[1] Section 58 *Coroners Act 2009*

11. Finally, coroners have a duty to seek to learn the lessons a sudden and unexpected death may have to teach us as a community. A sudden and possibly preventable death is made all the more tragic if the experience is not turned to preventing future deaths of a like nature. Inquests are therefore both backwards-looking and forwards-looking in the sense that they involve making findings as to the manner and cause of death and but also making recommendations aimed at preventing similar deaths.

The background

12. In early July 2005, Mr Mawby first consulted a general practitioner with complaints of about two months' duration of gradual onset tremor and stiffness in his left arm and left leg. He saw, Dr Pezzutti, a General Practitioner who worked at the Goonellabah Medical Centre where Dr Binns, Mr Mawby's regular GP also worked. Dr Pezzutti referred Mr Mawby to Dr Melinda Pascoe, a neurologist at Southport, Queensland and in August 2005 Dr Pascoe diagnosed Mr Mawby with Parkinson's disease.

13. Dr Pascoe began Mr Mawby on a small dose of Madopar, which is an anti-Parkinsonian agent aimed at reducing the symptoms of stiffness and tremor that Mr Mawby was experiencing. Over the period August 2005 to about October 2007, Mr Mawby at times got quite considerable relief from his left-sided Parkinsonian symptoms through Madopar and other various medications that Dr Pascoe prescribed for him.

14. Over time, however, he was experiencing more periods or episodes of freezing and restless legs. At certain times, Dr Pascoe adjusted the medication and added different agents but with mixed and often short-lived results in terms of relief of symptoms.

15. In December 2006, Mr Mawby saw another GP at Goonellabah Medical Centre, Dr Bains, and at that point reported feeling depressed but was specifically noted to be not suicidal. Dr Binnsdiagnosed depression and prescribed a small dose of Zoloft, an SSRI antidepressant.

16. Mr Mawby's family and friends thought that Mr Mawby was frustrated and upset by the gradually increasing disability that his Parkinsonian symptoms were bringing about. In particular, he was frustrated by the effects it was having on his ability to work and, more specifically, his ability to play his guitar. In about May 2007 Mr Mawby enquired of Dr Pascoe about possible surgery for his Parkinson's disease.

17. Dr Pascoe recommended that Mr Mawby see Dr John O'Sullivan, another neurologist from Brisbane, to try and smooth out the control of Mr Mawby's symptoms and also to assess him for possible surgical intervention. Ultimately, Mr Mawby saw Dr O'Sullivan in August 2007. In October 2007, Mr Mawby was referred to Professor Silburn for an assessment of his Parkinson's disease and to determine his eligibility for surgery.

18. Mr Mawby first saw Professor Silburn on 28 April 2008. Professor Silburn assessed Mr Mawby and determined that he was a suitable candidate for DBS surgery and recommended he undergo it. He particularly noted that despite periods of treatment with Madopar, Cabaser and Amantadine, Mr Mawby had variable and fluctuant control of his symptoms.

19. DBS surgery is a surgical procedure used to treat a variety of disabling neurological symptoms, the most common of which are the debilitating symptoms of Parkinson's disease such as tremor, rigidity, stiffness, slow movement and walking problems.

20. DBS surgery involves surgically implanting a battery-operated medical device known as a DBS-probe into certain target areas of the brain so that electrical impulses can be delivered to it. Typically the target areas are either the subthalamic nucleus or the globus pallidus, which are part of the basal ganglia system.

21. The intention of the DBS is that the electrical impulses interfere with and block the electrical signals that are causing the Parkinsonian symptoms. Once the neurostimulators are in place, adjustments then can be made to the electrical impulses to either increase or decrease the level of stimulation.

22. From 19 to 21 May 2008, Mr Mawby attended the Wesley Hospital in Brisbane, which was then the location for DBS surgery in Brisbane, in order to undergo his assessment for suitability for DBS surgery. Correspondence from Mr Mawby's general practitioner, Dr Binns, to Professor Silburn in October 2008 indicates that Mr Mawby's Parkinsonian symptoms were deteriorating so that by October 2008 Mr Mawby needed to walk with a stick. He had restless legs and very poor sleep and his medication was becoming less and less effective.

23. Mr Mawby was ultimately admitted to the Wesley Hospital in Brisbane on 17 November 2008. At that hospital, a team of doctors comprising a neurosurgeon, Dr Terry Coyne, a neurologist, Professor Silburn, and a psychiatrist who was, at that stage, brought in on a case-by-case basis, Dr Rodney Marsh, managed DBS patients.

24. Each doctor in the course of that admission and, in particular, on 18 November 2008, attended upon Mr Mawby and separately discussed the proposed surgery with him. On the same day Dr Coyne had Mr Mawby sign the consent form for the procedure.

25. On 19 November 2008 Dr Coyne actually carried out the procedure and implanted bilateral subthalamic nucleus deep brain stimulators. Professor Silburn was also present in the theatre for the procedure, his role being to locate the correct target area for the surgeon and determine the initial voltage settings for the stimulator.

26. Mr Mawby remained a patient in the Wesley Hospital for another 12 days after the surgery. This was a longer than usual post-operative admission. Some

significant behavioural issues emerged that needed to be addressed before he was suitable for discharge.

27. The first sign of anything in any way unusual was on 21 November 2008 when Mr Mawby was both incontinent of urine and also unaware of his incontinence. He was observed to be euphoric and exhibiting a mild comprehension delay when asked a question.

28. Over the next few days, Mr Mawby's behaviour and mood fluctuated considerably. At times he seems to have been calm and settled. At other times he was restless, confused and quite disturbed. I note that, according to some of the entries in the hospital notes, even at those times when Mr Mawby's behaviour was unusual, Mr Mawby was apologetic about his behaviour and worried about what others might think about it.

29. On 25 November 2008, Mr Mawby absconded from hospital and was tracked down after he had made a phone call to a friend from Toowong Village, a shopping centre in Brisbane.

30. Mr Mawby's wife and one of his sons escorted him back to hospital. They were concerned at that point about what they perceived as poor communication from the medical staff about Mr Mawby's condition and management and expressed this to staff.

31. Mr Mawby made a further attempt to leave hospital on the evening of the same day but was stopped by the nursing staff and convinced to stay after a telephone call was made to Cheri Mawby. It seems that there was some confusion at that point about instructions or advice that Professor Silburn had given about whether Mr Mawby should go home or stay in hospital.

32. On 26 November 2008, Professor Silburn reviewed Mr Mawby and formed the view that he had become impulsive and suspicious. He adjusted the DBS settings and requested a review of Mr Mawby by Dr Marsh, the psychiatrist. Dr Marsh then saw Mr Mawby on 27, 28 and 30 November 2008 at Wesley Hospital. It would appear that over that time further adjustments were made to Mr Mawby's medication and stimulator settings, following which he seemed much more settled.

33. On 1 December 2008, Professor Silburn reviewed Mr Mawby again and cleared him for discharge provided that the discharge was agreed by Dr Marsh and Dr Coyne. The records from the Wesley Hospital also contain a note by Professor Silburn that Mr Mawby was to be reviewed as an outpatient in his Brisbane rooms before Mr Mawby returned to Lismore.

34. Later on 1 December 2008, a member of the nursing staff telephoned Dr Marsh who confirmed that Mr Mawby was appropriate to be discharged without further medical review.

35. Mr Mawby was given a Patient Discharge Information Leaflet from the Wesley Hospital. That document contained a section which was headed, "Follow-up

Appointments". It included an entry indicating that Mr Mawby was supposed to telephone Professor Silburn for an appointment in approximately four weeks. Professor Silburn's telephone number was recorded on the document. Dr Marsh's contact details were also provided, but no plan was made at that stage for a further appointment with him.

36. Soon after Mr Mawby's discharge, further behavioural issues arose. Mr Mawby's mood and behaviour underwent significant fluctuations and variations. At times he was agitated and anxious with severe restless leg symptoms. He was so disturbed that on 3 December 2008 – two days after discharge – in desperation he turned off his DBS stimulators altogether and ceased his Parkinsonian medication.

37. After a number of unsuccessful attempts to get in touch with Professor Silburn, Mr Mawby and his wife, Cheri, telephoned Dr John O'Sullivan on 3 December 2008 to describe Mr Mawby's condition and get advice. Dr O'Sullivan recommended recommencing Pramipexole, the medication that Mr Mawby had been on at discharge, and also turning back on the DBS stimulators. Mr Mawby subsequently attended on Dr O'Sullivan in his rooms on 9 December 2008. When Mr Mawby saw Dr O'Sullivan on 9 December 2008, he described periodic episodes of feeling slightly agitated and somewhat manic, even after having recommenced the medication and turning the stimulators back on.

38. Dr O'Sullivan adjusted the stimulator settings and suggested some further fine-tuning of Mr Mawby's medication regime. At that point Dr O'Sullivan also sent a letter to Dr Binns, which was copied to the other treating doctors, Dr Coyne, Professor Silburn and Dr Marsh. In that letter Dr O'Sullivan noted thatMr Mawby was due to see Professor Silburn in the next few weeks and stated that he would arrange to see Mr Mawby himself in the New Year.

39. In the period 8 December 2008 to 22 December 2008, when Mr Mawby was back in Lismore with his wife, he also attended on Dr Binns on a couple of occasions and a naturopath, Llyris Robins. Cheri Mawby also spoke to Dr Binns about Mr Mawby on one occasion.

40. During this period Mr Mawby's mood swings and behaviour again became concerning. He was calm and settled at times, but at others quite "manic", agitated and out of control. Dr Binns suggested seeking psychiatric treatment but Mr Mawby – apparently lacking insight – was resistant to that suggestion.

41. Also during this period, an appointment was made for Mr Mawby to see Professor Silburn in Brisbane on 13 January 2009.

42. In the meantime, however, Mr Mawby's behavioural issues continued, culminating in an argument with his wife on the morning of 5 January 2009. Mr Mawby acted in a very uncharacteristic manner, kicking a rubbish bin and shaking his wife by the shoulders when she refused to hand over the car keys. Mr Mawby then stormed out of the house. Mrs Mawby then tried to call Dr Marsh but was unable to contact him.

43. Some time a little later that morning, Mrs Mawby started to look for her husband. She went downstairs and found him hanging in the garage underneath the house. Despite attempts at CPR by her and a passer-by, and later by ambulance officers, Mr Mawby could not be revived.

What information should Mr Mawby and his family have received pre-operatively?

44. One of the concerns raised by the Mawby family is that they were entirely unprepared to deal with the sudden onset and degree of Mr Mawby's behavioural changes.

45. The expert witnesses reached a clear consensus in their reports and oral evidence that Mr Mawby needed to be given all necessary information about the risks of surgery (such as the risks of infection, cerebral haemorrhage and death resulting from such complications), the possibility that the DBS surgery would not work in his case, and that there may be serious post-operative non-motor complications, to enable him to give properly informed consent to the procedure.

46. They were also generally of the view that, in relation to the non-motor risks, it is preferable for the family to be made aware of the potential for serious post-operative behavioural changes. It was also agreed that this information should, as a rule, be given to the patient and family well ahead of the operation to give them time to digest its significance and to make their own mental and practical preparations.

47. The only contentious question in relation to the information provided to Mr Mawby and his family was whether the risk of post-operative suicide should have been raised directly.

48. All the experts who gave evidence on this issue were very concerned that raising the issue of suicide starkly may have a counter-productive effect on patients. Dr Raymond Cook, a neurosurgeon and an expert witness qualified by Dr Coyne, made the persuasive point that Parkinson's sufferers are a fragile patient group who, for understandable reasons, have a higher incidence of depression than the general population and a higher risk of suicide than the general population, whether or not they receive DBS treatment.

49. Even Dr Andrew Evans, expert neurologist, who was the strongest advocate for raising the issue of suicide, cautioned that each case had to be judged on its own merits and that if the issue was to be discussed it had to be done in a very careful fashion so as not to terrify patients and their families. Given that the risk of suicide following DBS surgery is low but the benefits of DBS can be great, it would be tragic if patients who could benefit from the therapy refused it because they had been frightened off.

50. While patients certainly have a right to know that there may be significant (but usually temporary) psychiatric sequellae from the DBS surgery, the process of informing the patient should – and as I understand it, usually does – include

reassurance for the patient that, with proper post-operative management, adjustments can be made to settings and medication to alleviate any serious non-motor symptoms that emerge.

51. When he saw Mr Mawby the day before the operation, Dr Marsh certainly raised suicide as one of a number of possible post-operative risks but did not emphasise it. We can infer from the fact that Mr Mawby proceeded with the surgery that he was not terrified by Dr Marsh's explanation of the potential risks. Dr Marsh's approach appears to have been entirely appropriate.

52. Although, in the final submissions made on his behalf by his counsel, Professor Silburn conceded that he should have raised the question of non-motor complications when he met Mr Mawby in April 2008, in his witness statements, and during his oral evidence, he maintained that he had expected this issue to be dealt with by Dr Marsh.

53. From his perspective, Dr Marsh had been brought in to make a psychiatric assessment of Mr Mawby and had the specific expertise to inform Mr Mawby of the potential non-motor risks. And, while it is undoubtedly true that Dr Marsh did provide such information to Mr Mawby, including information concerning the possibility of post-operative suicide, one of the problems in this case is that this consultation came only a day before the surgery.

54. Professor Silburn also appeared to attempt to evade the question of whether the risk of suicide should have been raised at all by asserting and maintaining that until "Class 1" evidence[2] was available, he would not make any changes to his practice and that without "Class 1" evidence of an association between suicide and DBS surgery he would not raise it with patients.

55. I find this explanation unconvincing. It smacked of an *ex post facto* justification for his failure to address the issue with Mr Mawby. In 2008, there was some evidence – not at a "Class 1" level admittedly – that suggested an association between suicide and DBS surgery.[3] Although that issue remains controversial

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[2] Medical evidence is graded according to its value. Although slightly different categories have been developed by different bodies internationally, the tables are largely consistent in describing the hierarchy of evidence. See, for example the following table:

- Ia: systematic review or meta-analysis of Random Controlled Trials.
- Ib: at least one Random Controlled Trial.
- IIa: at least one well-designed controlled study without randomisation.
- IIb: at least one well-designed quasi-experimental study, such as a cohort study.
- III: well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, case-control studies and case series.
- IV: expert committee reports, opinions and/or clinical experience of respected authorities.

C. Tidy "Different Levels of Evidence" http://www.patient.co.uk/doctor/different-levels-of-evidence accessed 06 November 2014.

[3] See T Soulas et al "Attempted and completed suicides after subthalmic nucleus stimulation for Parkinson's disease" *Journal of Neurology, Neurosurgery and Psychiatry* (2008); 79: 952-954; V Voon et al "A multicentre study on suicide outcomes following subthalmic stimulation for Parkinson's disease" *Brain* (2008); 131(10): 2720-2728.

and some subsequent studies have suggested that, an epidemiological level, the rate of the risk of suicide before and after DBS surgery is virtually indistinguishable,[4] the question is not whether there was "Class 1" evidence of suicide being a risk, but what to tell the patient so that he or she could make an informed decision. Except for Professor Silburn, all of the clinicians who gave evidence accepted the general precautionary principle of informing the patient about the potential for serious psychiatric sequellae. If they hesitated about to mention suicide to patients, it appeared to me that their primary concern was for the patient's mental well-being, not the absence of "Class 1" evidence.

56. In any event, Professor Silburn could readily have prefaced his advice by reference to the Australian Referral Guidelines and what the medical literature indicated, with an additional comment about his own view that more research needed to be done on the suspected link. I note that Professor Silburn was one of several authors of that paper, and that the final paragraph states:

> *Depression has been observed in about 8% of patients postoperatively (most often in patients who have suffered depression prior to surgery). While depression usually resolves with supportive or pharmacologic therapy, it has occasionally led to suicide or attempted suicide. Screening for neuropsychological and neuropsychiatric conditions and appropriate support are therefore important elements of the pre-operative work up and general management of patients undergoing DBS.*

57. As Mr Mawby's case reveals starkly, Professor Silburn's approach to the patient's psychiatric care was flawed from the outset. First, the informed consent process before surgery is not a mere question of compliance and risk-management from a legal perspective. It is not and should not be about ensuring that doctors are legally protected from suit, but about ensuring that patients fully understand their situations. Leaving the discussion of non-motor risks to the last minute may not have allowed Mr Mawby sufficient time to absorb, let alone prepare for, post-operative psychiatric changes. It certainly did not allow his family any time to do so.

58. I accept Dr Linton Meagher's expert evidence that sometimes, due to the particular circumstances of a case, the discussion of the non-motor risks only takes place at the last minute.[5] That is better than not at all. In this case, however, Professor Silburn was well aware of the incidence of non-motor sequellae and could easily have put Mr Mawby on general notice of them in April 2008 with a more detailed discussion with Dr Marsh to follow in due course.

59. Second, the timing of the consultation and assessment by Dr Marsh was chosen by Professor Silburn, not Dr Marsh. This may have been convenient for the

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[4] See D Weintraub et al "Suicide ideation and behaviour after STN and GPi DBS surgery for Parkinson's disease: results from a randomised, controlled trial" *Journal of Neurology, Neurosurgery and Psychiatry* (2013); 84:1113-1118.

[5] Dr Meagher is a consultant neuropsychiatrist, qualified in this case by Dr Marsh.

treating team, in that they got an assessment of Mr Mawby's psychiatric suitability that was very current, but it did little for the patient and his family.

60. Third, it was agreed by the experts that ideally families should be engaged in the process along the way. They can provide relevant information to the treating team because they know the patient better than the treating team. This assists the clinicians in their assessment of the patient. It also enables the clinicians to prepare the patient's chief post-operative supporters for any eventualities that may be of significant concern and to give them an action plan if they need one. For reasons that are not clear – possibly because Mr Mawby did not wish to worry them – the Mawby family were not involved in the discussion between him and Dr Marsh. Had there been more time it may have been a different story, but we will never know.

61. In summary, as the clinician recommending the procedure, and the DBS team leader, it was Professor Silburn's responsibility to provide the relevant information Mr Mawby needed that would permit him to make an informed choice (and also to permit his family to understand the procedure and what role they would have post-operatively).

62. Professor Silburn's role was central. He was the first clinician to see Mr Mawby. As the DBS team leader, he had an overview of the whole process. He specifically assessed Mr Mawby as suitable and recommended DBS surgery on 28 April 2008. The evidence of the expert neurosurgeons, the expert psychiatrists and the expert neurologist was to the effect that *at this point*, it was important to cover non-motor risks, including risk of serious behavioural disturbances.

63. While it would have been reasonable to leave a detailed assessment and discussion about psychiatric issues to Dr Marsh, the preponderance of evidence suggests that it was not good enough for Professor Silburn simply to assume that the issue would be fully covered down the track, especially as he did not know what Dr Marsh would say to Mr Mawby or his family.

64. Professor Silburn's initial failure to address these issues was the first of what could be characterised as a number of communication issues which ultimately led to Mr Mawby falling through the cracks post-operatively.

Care in hospital

65. The care provided by Drs Coyne and Marsh in hospital was entirely appropriate.

66. The real question in relation to Mr Mawby's in-patient care is whether Professor Silburn's management of Mr Mawby was appropriate. The weight of evidence suggests that Mr Mawby was highly sensitive to even very low voltage settings. This made it more difficult than with the general run of patients to find an appropriate balance of stimulation and medication. Hence Mr Mawby was kept in hospital longer than would usually be the case and was not discharged

until he had been settled for a continuous 48-hour period. Professor Silburn also arranged for him to be reviewed in hospital by Dr Marsh in relation to his behavioural/psychiatric symptoms.

67. Although Dr Evans suggested that Professor Silburn might have been more cautious in increasing the stimulation levels, he ultimately accepted that the way Professor Silburn managed the stimulation levels was consistent with widely accepted practice among DBS practitioners around the world. He agreed that the management of Mr Mawby's stimulation levels within those parameters was a matter of clinical judgment. That being so, as Mr Mawby was in hospital and being closely monitored and observed, I accept that the management of the stimulation settings and medications in that setting was reasonable.

68. This, however, was surely the appropriate time to bring home to the Mawby family that, while the vast majority of patients who suffered such behavioural disturbance settled relatively quickly, Mr Mawby's behaviour was concerning and could be very serious. It was also the appropriate time to settle the plan for emergency contact if things went badly wrong post-discharge, and to assure the Mawby family that immediate support would be available if needed.

69. The evidence from Mrs Mawby and Adam Mawby suggests that Professor Silburn said nothing more than that Mr Mawby would be watched closely in hospital. If that was the case, and I have no reason to doubt it, this was an inadequate warning as Dr Evans, and, to a lesser extent the expert psychiatrists and neurosurgeons, indicated.

70. Moreover, the post-operative difficulty in stabilising Mr Mawby must certainly have been a warning sign to Professor Silburn that his post-discharge care would have be carefully planned and executed. How was this to be done? This brings us to the next significant controversy in this case.

Whose patient was Mr Mawby?

71. One of the unanticipated issues in this case arose on the first day of the hearing in February 2014 in Murwillumbah when Professor Silburn, to my surprise and to the surprise of virtually everyone in the courtroom who had knowledge of the case, apparently including his own legal representatives, declared during examination by Counsel Assisting, Mr Downing, that Mr Mawby had not been his patient at the time he was discharged from the Wesley Hospital, but that had been handed over to Dr John O'Sullivan on the weekend of 28 November 2008 following a "terse conversation" with members of the Mawby family.

72. It then became necessary, as a matter of procedural fairness to Dr O'Sullivan, and at significant cost to all parties and the court, to adjourn the hearing to enable him to obtain legal representation and advice and, of course, to enable him to meet this evidence.

73. Throughout the fixture in Murwillumbah in October 2014, Professor Silburn maintained that he had handed over the patient to Dr O'Sullivan.

74. In my view, that evidence was wrong and implausible, and raises the question whether Professor Silburn had deliberately sought to mislead the court in February 2014 when he first made the claim, and in his subsequent evidence when he maintained that stance. In short, was this a recent invention of Professor Silburn's, designed to deflect obloquy from himself onto another neurologist who was neither present nor legally represented in Murwillumbah in February 2014?

75. The claim was, in my view, wrong and implausible for the following reasons:

(i) On Friday 28 November 2008, Professor Silburn made a note in the clinical records as follows (albeit in some shorthand, which I have expanded here for clarity):

> *[Discussion with] son Adam about events and plan. Will [review] further and [increase left] IPG and slow [increase right] IPG.*

In cross examination by Dr O'Sullivan's counsel, Professor Silburn agreed that this note indicated that he would review Mr Mawby and make the adjustments to the DBS apparatus. This note followed the conversation during which Professor Silburn claimed the therapeutic relationship with the Mawbys had broken down and he had decided to hand the patient over to Dr O'Sullivan. If that were so, some record of (a) the breakdown in the relationship and (b) his decision to handover to Dr O'Sullivan would surely have been made along with the other clinical notes. The note that he would review Mr Mawby and adjust the settings is self-evidently inconsistent with an intention to handover the patient to another clinician;

(ii) Professor Silburn's own entry in the clinical notes on 1 December 2008 shows that he assessed Mr Mawby, made no changes to DBS settings or the medication and decided that Mr Mawby could be discharged if this was agreed to by Drs Marsh and Coyne, and provided that he was reviewed as an out-patient in Professor Silburn's rooms before heading back to Lismore. Professor Silburn's evidence to the effect that he happened to see Mr Mawby on the ward that day and assessed him as a sort of courtesy *might* be accepted if there was anything but his own assertions to support his claim of having handed the patient over to Dr O'Sullivan. But it cannot stand in the face of his own note in the clinical records, let alone against the accumulated evidence to the contrary from other sources;

(iii) There was no record in the Wesley Hospital clinical notes of a handover nor was there a letter from Professor Silburn or anyone else (such as Dr O'Sullivan or another member of the treating team) suggesting that the purported handover had occurred;

(iv) Dr Coyne, the treating neurosurgeon, who followed the standard practice of writing a short letter to other clinicians involved in the case, primarily Professor Silburn, noted in his letter of 4 December 2008 that he would review Mr Mawby (in relation to surgical issues) when Mr Mawby was

reviewed by Professor Silburn. As Professor Silburn and Dr Coyne, at that stage, were the permanent team seeing all their joint patients, it would be curious for Professor Silburn to have failed to notify Dr Coyne of the change of neurological care if that is what had happened;

(v) Dr Marsh, the treating neuropsychiatrist, gave evidence to the effect that Professor Silburn routinely arranged post-discharge care and that he would expect to be informed if there were any alterations to that arrangement. He said that he had never been under the impression that Professor Silburn had transferred care of Mr Mawby to Dr O'Sullivan;

(vi) Dr O'Sullivan, a thoughtful, careful and meticulous clinician and record keeper, denied knowledge of any such handover. He sent two detailed clinical letters concerning his interactions with Mr Mawby following discharge. They were copied to other clinicians including Professor Silburn. Nowhere in his correspondence did he give any intimation of, let alone make any express reference to, taking over immediate post-operative care of Mr Mawby from Professor Silburn. In his oral evidence at the inquest, he said that if he had taken over Mr Mawby's care he would definitely have made an entry in the notes. Given the demonstrably careful nature of his record-keeping practice in relation to other aspects of Mr Mawby's case, I find it implausible that such a significant matter would have been overlooked or left unrecorded by him;

(vii) Dr O'Sullivan saw Mr Mawby in hospital after the operation on the weekend in question when he was fulfilling the same role as Dr Saines, who had seen Mr Mawby the previous weekend, namely as the on-call neurologist. Nothing in that role, objectively speaking, suggests that Dr O'Sullivan was to take over care;

(viii) Professor Silburn said nothing to the Mawby family at any point to suggest that care had been handed over to Dr O'Sullivan. The family's understanding and firm expectation was that Professor Silburn was the treating neurologist even after discharge. This is corroborated by their several frustrated attempts to get in touch with Professor Silburn before calling Dr O'Sullivan to seek help for Mr Mawby, and their acceptance of an appointment with Professor Silburn for Mr Mawby on 13 January 2009;

(ix) But for Dr Cook, all the experts were agreed that it is usually up to the DBS team neurologist, who has an overview of all the relevant disciplines, to arrange the post-operative and post-discharge care. Even Dr Cook agreed that this is the general approach taken. His hesitation in relation to the specific case arose only because he was unclear whether or not there had in fact been a handover to Dr O'Sullivan by Professor Silburn;

(x) Professor Silburn did not give this new version of events until part way through his evidence on 24 February 2014, notwithstanding the following:

(a) the fact that the list of issues to be addressed by Professor Silburn in his statement, as sent to his solicitors on 18 December 2012 specifically listed "any plan put in place for the provision of psychiatric/psychological support or follow up for Mr Mawby after the DBS procedure" as an issue;

(b) the fact that Professor Silburn's statement of 22 January 2013 did not mention any handover of care to Dr O'Sullivan;

(c) the fact that when Professor Silburn's solicitors sent a letter dated 19 February 2014 pointing out an error in the 22 January 2013 statement, no reference was made to any handover of care to Dr O'Sullivan;

(d) the fact that prior to the inquest beginning, Professor Silburn received and reviewed Professor Bittar's expert report, in which Professor Bittar criticised aspects of Mr Mawby's post-surgical care, including discharge arrangements and post-discharge care arrangements, but Professor Silburn did not instruct his lawyers to put on a supplementary statement indicating he had discharged Mr Mawby into Dr O'Sullivan's care; and

(e) the fact that no instructions were given to an expert consultant neurosurgeon he had qualified on his own behalf to give evidence, Dr McNeill, to the effect that there had been a handover of care to Dr O'Sullivan and further, the fact that in his expert report, Dr McNeill expressed the opinion that it was preferable that the DBS neurologist (plainly a reference to Professor Silburn) should have seen Mr Mawby soon after discharge.

Was Professor Silburn's evidence intended to mislead?

76. It was suggested to me by Counsel Assisting that the most favourable finding I could make about Professor Silburn on this issue is that he had somehow convinced himself of the truth of that version of events in trying to make sense of why the discharge and post-discharge arrangements in this case were so poor. Counsel for the Mawby family, Mr Hunt, submitted that a positive finding that Professor Silburn had given dishonest evidence in the hope of deflecting blame from himself should be made.

77. Professor Silburn's counsel, Ms Burke, submitted that while a finding could be made that he was wrong about having handed over to Dr O'Sullivan, a finding of deliberate or intentional falsehood did not follow and should only be made with very great caution.

78. As a general proposition, Ms Burke's submission that a finding of this nature should only be made with considerable circumspection is correct. In *Briginshaw v Briginshaw* [1938] HCA 34; 60 CLR 336 (at 361-362) Dixon J said:

> The truth is that, when the law requires the proof of any fact, the tribunal must feel an actual persuasion of its occurrence or existence before it can be found. It cannot be found as a result of a mere mechanical comparison of probabilities independently of any belief in its reality. No doubt an opinion that a state of facts exists may be held according to indefinite gradations of certainty; and this has led to attempts to define exactly the certainty required by the law for various purposes. Fortunately, however, at common law no third standard of persuasion was definitely developed. Except upon criminal issues to be proved by the prosecution, it is enough that the affirmative of an allegation is made out to the reasonable satisfaction of the tribunal. But reasonable satisfaction is not a state of mind that is attained or established independently of the nature and consequence of the fact or facts to be proved. *The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding are considerations which must affect the answer to the question whether the issue has been proved to the reasonable satisfaction of the tribunal.* In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences. (Emphasis added).

79. Ms Burke submitted that in February 2014, Professor Silburn had been very anxious and "reactive" to questions put to him by Mr Downing. She said that he had felt that he was the "target" of an attack upon him. She conceded that his demeanour had done him few favours when he gave evidence, especially when he was examined in February 2014, but argued that an inference that he had given dishonest evidence could not be drawn from the manner in which he had given it.

80. I would be loathe to make a finding of such significance on the basis of Professor Silburn's demeanour alone. Sometimes witnesses feel honestly indignant when they are challenged or believe they are being personally attacked while giving evidence and react by counter-attacking. That response, however, is different from the reaction of a witness who blusters and apparently invents new claims or who appears to be fabricating self-serving stories on the run without independent corroboration or even a common sense basis for them. Nevertheless, his demeanour cannot be let past without comment.

81. Professor Silburn's performance as a witness in February 2014 was extraordinary. As the transcript of evidence shows, he was dismissive of any suggestion of criticism, was disrespectful of Counsel Assisting and the court, obviously resentful of lawyers raising questions about his management of patients and, for much of the time, apparently oblivious of the Mawby family who were sitting in dignified silence in court close by.

82. It must be acknowledged that at the end of his evidence in the October 2014 sittings, he conceded that he and his team had erred in some respects and that due to those failures, Mr Mawby had "fallen through the cracks" in the system he was responsible for. Before he left the court, he approached Mrs Mawby and her

sons and apologised. In her closing submissions, his counsel told the court that Professor Silburn now had insight into the Mawby family's experience and concerns, acknowledged them, was remorseful, and had taken concrete steps to address them in the practice of Neurosciences Queensland.

83. It is unfortunate, however, that a full range of concessions only came from Professor Silburn after Counsel Assisting had finished his closing address. That address included a submission that I should consider referring Professor Silburn to the Queensland Health Ombudsman for investigation of his professional conduct.

84. It is unnecessary even to consider his demeanour to arrive at what appears to me to be the only rational conclusion on the evidence, namely, that Professor Silburn suddenly invented the proposition of handing over the patient to Dr O'Sullivan. But his combative, discourteous and disrespectful demeanour on that occasion lends weight to the conclusion that, feeling desperate and under attack, he fabricated the evidence about Dr O'Sullivan taking over from him, hoping that, in the absence of Dr O'Sullivan from the hearing, this story would deflect blame or at least cause confusion as to who had had responsibility.

85. His refusal to recant, either in February 2014 or, when confronted with Dr O'Sullivan's and other contradicting evidence in October 2014, taken together with the qualification he offered several times in the October 2014 sittings that he had handed over to Dr O'Sullivan "in his mind", and other evasions, suggested very strongly that, from the time he had made it, he well knew that the claim was not true.

86. As well as attempting to mislead the Court, as I think he sought to do, Professor Silburn's conduct, coming as it did from a doctor so eminent in his field, in seeking to deflect blame or responsibility, first onto Dr O'Sullivan and then, more generally, onto "the team", was troubling and disappointing.

Whose patient was Mr Mawby?

87. In my view, Professor Silburn never handed Mr Mawby's care and management over to Dr O'Sullivan. Mr Mawby was Professor Silburn's patient in hospital and Mr Mawby was seen by Dr O'Sullivan only as the on-call duty neurologist who was covering the hospital on the last weekend in November 2008.

88. It was a mere coincidence that Dr O'Sullivan had been the neurologist who had referred Mr Mawby to Dr Silburn. He stepped into the breach on 3 and 9 December 2008, not because he was the treating neurologist, but because Professor Silburn or his staff had ignored the calls for help from the Mawbys.

What follows from this?

89. All the experts, including the one qualified by Professor Silburn, agreed that the treating neurologist was responsible for organising appropriate follow-up prior to discharge. It follows that the responsibility for the post-discharge plan was

Professor Silburn's. It also follows that executing the plan was Professor Silburn's responsibility.

The post-discharge plan and its failed execution

90. Professor Silburn made a plan to see Mr Mawby in his rooms in Brisbane before Mr Mawby returned to Lismore. That plan was recorded in the clinical notes on 1 December 2008. It was also Professor Silburn's general practice to see his DBS patients about two weeks after discharge. That plan was appropriate. But it was not executed.

91. The failure to organise proper follow-up and execute the plan was compounded by the fact that this breakdown in the arrangements occurred shortly before the Christmas break. Professor Silburn went on leave on 17 December 2008 for about a month.

92. Dr Cook, who, of all the experts, was otherwise least critical of Professor Silburn overall, stated that all DBS patients need post-operative psychological or psychiatric support – "that is a given". He said words to the effect of, "It's all about the neuropsychiatry after surgery" and that this was a matter for the treating neurologist (whoever that was) to arrange.

93. He also emphasised that in December it is critically important to make firm arrangements for patients to be reviewed within two weeks "at most" because this is the most difficult time of year in which to make appointments. Doctors are very busy and then they tend to take leave in January. Dr Cook stressed that "there's always got to be access to expert care" and that this requires a system. He said, "You've got to get very organised around Christmas."

94. Professor Silburn remained the clinician who was overall in charge of Mr Mawby's care, notwithstanding the team approach. Dr Marsh had a limited liaison psychiatrist role. The expert evidence from the three neurosurgeons, the two psychiatrists and the neurologist, Dr Evans, who all gave oral evidence, is to that effect. Dr Coyne was undeniably correct in his 4 December 2008 letter when he indicated that in the short term post-discharge, Mr Mawby would need considerable psychological support and follow-up. It was incumbent on Professor Silburn to organise that follow-up and support and (where it was necessary) to call in Dr Marsh to assist.

95. There were a number of critical reasons why it was imperative that specific follow-up appointments needed to be made at discharge and those details needed to be communicated to Mr Mawby and his family. The pressure created by the time of year was intensified by the fact that Mr Mawby lived in Lismore, New South Wales. This made it all the more important to make firm arrangements.

96. Secondly, Professor Bittar was of the view that in terms of the post-discharge care, time was of the essence in view of the behavioural problems that developed in hospital (indicating an increased risk of further problems) so that early follow

up was required and it needed to be locked in. Dr Meagher expressed the issue well in his evidence when he indicated that, at discharge, a one-off or cross-sectional review was less than adequate. Rather, what was required was care which involved Mr Mawby being seen longitudinally because of the fluctuations in his behaviour which could have lulled his family or non-DBS expert clinicians into underestimating the seriousness of his mood disorder.

97. Perhaps the most powerful evidence of all as to the need for early post-operative review and locked-in appointments is Professor Silburn's own 1 December 2008 entry in the clinical notes. His own order only cleared Mr Mawby to go home if Drs Marsh and Coyne assented *and* he was reviewed as an out-patient in *his* rooms before going home to Lismore. The three expert neurosurgeons agreed that Drs Coyne and Marsh were entitled to rely on that proposed out-patient review in clearing Mr Mawby for discharge.

98. In fact, no such out-patient review was ever organised (or even discussed with Mr Mawby despite Adam Mawby raising it in his discussion with Professor Silburn on 28 November 2008). No plausible explanation for this failure to carry out such a fundamental and necessary review has been provided by Professor Silburn.

99. The most likely explanation is that he was very busy, quite disorganised and had no back-up system to ensure that mistakes such as this were picked up and corrected. That disorganisation, poor communication with the patient and other clinicians, and lack of systems were what really led to this failure to review Mr Mawby is also suggested by Professor Silburn's chronic failures to write standard clinical letters to referring doctors.

100. In short, Mr Mawby needed to be seen and it was Professor Silburn who should have organised that early out-patient review. Given the behavioural problems that we now know occurred in the couple of days post-discharge, it is possible that if Professor Silburn had seen Mr Mawby as an out-patient in Brisbane in early December 2008, there would have been a different post-operative trajectory.

101. Whilst it is impossible to know whether Mr Mawby's death would have been averted through earlier and more organised post-discharge care, or the provision of more information to the Mawbys about the type of behavioural disturbances that could occur post-DBS, such measures would have certainly put Mr Mawby in a position where his family and medical practitioners were in the best possible position to identify behavioural problems and deal with them as they arose.

102. As an aside, I note that Professor Silburn conceded in his evidence that his failure to correspond with other relevant clinicians was poor practice on his part but asserted that he had [perhaps very belatedly] attended to this deficiency. A number of anonymised letters were tendered to demonstrate the improvement in his practice. He also gave evidence that the general record-keeping in his

practice had improved because a number of specialist nurses were now employed at Neurosciences Queensland. They manage the administrative aspects of the patient follow-up to a significant degree.

103. Other post-operative arrangements that were made were also inadequate. Mr Mawby was simply given a post-discharge care card that told the Mawbys to make an appointment with Professor Silburn in four weeks. This was very poor planning as it was both too long a delay before the first post-discharge review and, in any event, Professor Silburn was going to be on leave for a further two weeks at the time, not to mention the fact that the proposed date fell squarely into the Christmas – New Year holiday period when most professional businesses close.

104. This chaotic approach to Mr Mawby's post-operative management is highlighted by fact of the Mawbys telephoning Dr O'Sullivan on 3 December 2008 out of desperation and then seeing him on 9 December 2008 because they could not get in touch with Professor Silburn. In no way should Dr O'Sullivan's preparedness to make himself available at short notice be seen as filling in the post-operative care gap left by Professor Silburn. As Dr McNeill indicated, Dr O'Sullivan's 9 December 2008 letter to Dr Binns (copied to Professor Silburn, Dr Marsh, Dr Coyne and Ms O'Maley) by itself raised uncertainty as to who was managing Mr Mawby's condition and it was not appropriate to leave that issue up in the air.

105. That the Mawbys telephoned Professor Silburn's rooms in the first week of December 2008 and obtained no earlier review appointment than 13 January 2009, leading them to see Dr O'Sullivan, again reflects very poorly on Professor Silburn and/or perhaps the staff in his rooms.

106. Professor Silburn was on leave between 17 December 2008 and 11 January 2009 but left the Mawbys with no alternative source of expert neurological care for Mr Mawby. All the expert witnesses who gave evidence on this point, including the one qualified by Professor Silburn, emphasised the principle that there must always be access for DBS patients to expert care in an emergency or if there are serious concerns. Dr Cook said that there must be a system, in essence: "There must always be someone around and a number to ring."

107. Once Professor Silburn's claim that he had handed Mr Mawby over to Dr O'Sullivan is rejected, it is starkly obvious that his post-operative arrangements had fallen inexcusably short of what should have taken place. Again, the contrast between his lack of response to the calls from the Mawbys and Dr O'Sullivan's immediate response is telling.

108. After he saw Mr Mawby on 9 December 2008, Dr O'Sullivan immediately wrote to Mr Mawby's various clinicians, including Professor Silburn. The only rational inference to draw from that letter is that he wanted Professor Silburn to know what he had done so that Professor Silburn could respond in an appropriate fashion. When Professor Silburn saw that letter is unclear but if, as he ought to have done, he saw it before he went on leave, he ought to have responded

urgently because it was clear that Mr Mawby's condition was very unsettled and needed to be addressed. Even then he failed to respond.

109. Any suggestion that the Mawbys were slow or deficient in their response to Mr Mawby's behavioural problems must be rejected out of hand. They were not the experts in managing DBS patients post-operatively. They did not miss any appointments with members of the treating team. The breakdown in communication with them came from Professor Silburn's end, and was compounded by the facts that he took leave at the critical time, had left no one to oversee Mr Mawby's care in his absence, and had failed to get in touch with any other clinicians who might have dealings with Mr Mawby, such as his GP or Dr O'Sullivan, about emergency arrangements. This effectively abandoned Mr Mawby and his family to their own devices until 13 January 2009 – far too long a period for such a volatile and fragile patient.

Did DBS contribute to causing Mr Mawby's death?

110. It is a common logical fallacy to assume that because one event follows another, the second was caused by the first.[6] As Professor Silburn, in a rare light moment during the inquest noted, you can find an apparently close association between the consumption of potatoes and the Irish birth rate. Mere coincidence is insufficient to prove a causal connection.

111. It is not possible to conclude that DBS surgery directly caused Mr Mawby to take his own life. His decision was apparently taken suddenly and impulsively during an episode when he had become highly agitated and was behaving well out of character. But there is cogent medical evidence that suggests that DBS can lead in some cases to increased incidence of depression and impulsivity,[7] both of which can be factors in suicidal behaviours.

112. Professor Silburn had no clear explanation of the likely cause of Mr Mawby's ongoing agitation and disturbed behaviour, but attributed it to a combination of DBS and medication reduction, with greater emphasis on the effect of medication.

113. Dr Evans, the independent expert neurologist briefed in this matter, on the other hand, stressed that the objective evidence showed that Mr Mawby was highly sensitive to stimulation even at very low voltages. This was demonstrated by the fact that his motor symptoms responded well even at these low preliminary settings. Despite the fact that the settings were within normal parameters, because of this, he thought that the most likely cause of Mr Mawby's behavioural changes was that he was being overstimulated.

114. When Mr Mawby saw Dr O'Sullivan on 9 December 2008, Dr O'Sullivan made a minor adjustment upwards to the DBS settings on the right hand side only. If

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[6] This is known as the "post hoc ergo propter hoc" fallacy – "after this, therefore because of this".

[7] See, for example, J M Bronstein et al."Deep brain stimulation for Parkinson disease: an expert consensus and review of key issues." (2011) *JAMA Neurology*, 68(2): 165.

Dr Evans is correct, although such a minor change may not have worsened Mr Mawby's agitation, it was not going to solve the problem.

115. In saying this, I imply no criticism of Dr O'Sullivan. He was relatively new to the field of DBS in 2008 and, although he had seen Mr Mawby briefly in hospital on the weekend before discharge, he did not have a detailed clinical picture with which to work. In doing his best to help Mr Mawby in these circumstances, he was to some considerable extent flying blind. Professor Silburn would have been in a much better situation to make the necessary assessments and adjustments had he made himself available.

116. Both Professor Silburn and Dr Evans are highly experienced neurologists with extensive research backgrounds. I prefer Dr Evans' explanation because, on the basis of objective and cogent evidence, he was able to identify that Mr Mawby was highly sensitive to stimulation and therefore relatively easily overstimulated. In his view, there was a direct causal link between the level of stimulation and the behavioural changes. Dr Evans' opinion may be supported to some degree by the guidelines concerning mood disorders issued by Neurosciences Queensland in 2013. Those guidelines indicate that if a patient is suffering post-operative mood disturbances one of the immediate steps to be taken is to adjust the DBS settings, including reduction of voltage. On the other hand, Professor Silburn's assessment of what was going on with Mr Mawby, and whether DBS may have been implicated, was quite guarded and, compared with that of Dr Evans, unsatisfactorily vague.

117. Insofar as Mr Mawby's post-operative increased agitation was a significant causal factor in raising his levels of impulsivity and frustration (and possibly depression), it follows that, although it did not directly result in Mr Mawby's suicide, DBS was implicated to some immeasurable degree in it. Whether the outcome would have been different had appropriate post-discharge arrangements been made, however, we can never know, but the chances of averting Mr Mawby's death must surely have been improved.

What has been done to address the systemic problems?

118. The Wesley Hospital and the St Andrew's War Memorial Hospital are both part of the UnitingCare Health group in Queensland. DBS procedures are now performed at St Andrew's. UnitingCare has well-developed clinical pathways protocols for DBS procedures conducted in its hospitals. Although it provides the facility for DBS surgery and the Asia-Pacific Centre for Neuromodulation, Neurosciences Queensland performs the procedures and is responsible for pre-admission and post-discharge care.

119. In his evidence, Professor Silburn told the court that Neurosciences Queensland has significantly reformed and improved its practice. He had also improved his own personal practice.

120. As previously noted, Professor Silburn gave evidence that his communications with fellow clinicians have been radically improved simply by ensuring that

appropriate clinical letters are sent to them. This is, I note, merely basic clinical practice.

121. Neurosciences Queensland has employed specialist DBS nurses who are involved from the pre-admission stage and all through the post-operative stages. They are the first port of call for patient inquiries. Given their experience and knowledge they are able to determine what kind of assistance the patient or the patient's family's needs and can organise this.

122. A 24-hour helpline is available for technical questions about the DBS device and two DBS nurses are available during Neurosciences Queensland's business hours to provide assistance and advice.

123. All Neurosciences Queensland patients are now psychiatrically assessed in the pre-admission process.

124. During the pre-admission phase, the risks of motor and non-motor complications are discussed. Patients are given a document to take away and read. A pre-admission information package has been developed and is given to patients.

125. Professor Silburn also gave evidence that follow-up of patients has been increased and that the process is more organised and formalised with the use of checklists, protocols and information packages. Neurosciences Queensland has developed guidelines for the management of post-operative mood disorders and, in particular, for the management of patients suffering suicidal ideation following DBS surgery.

Further improvements: recommendations

126. At the conclusion of the hearing, Counsel Assisting, Mr Downing proposed a number of recommendations. Following discussion with the interested parties, a general consensus was reached that small but significant improvements could be made to the current systems and protocols used by Neurosciences Queensland in UnitingCare hospitals. They include amendments of clinical pathways, the development of discharge checklists and the provision to patients of a detailed information card providing emergency telephone assistance numbers.

Referral of Professor Silburn to Queensland Health Ombudsman

127. Counsel Assisting also submitted that I should consider referring this matter to the Queensland Health Ombudsman for investigation. Counsel for the Mawby family made the stronger submission that I should do so. Counsel for Professor Silburn submitted that, although there appeared to be serious errors made by Professor Silburn in the post-operative management of Mr Mawby's care, he had demonstrated insight into the problems and had made concrete changes in his personal practice and the practice of Neurosciences Queensland generally. For these reasons, she submitted that it was unnecessary to make a reference to the Health Ombudsman.

128. I propose to refer this case to the Queensland Health Ombudsman. I do so not to humiliate Professor Silburn, although the reference may have such an effect, but because I consider that his work and the work of Neurosciences Queensland is of such high value to the Australian and international communities that it must be performed at the highest standards. My particular reasons for doing so are as follows:

(i) All the expert witnesses who gave evidence, including the one who was brought forward by Professor Silburn himself, gave evidence that showed that the execution of the post-operative plan was very poor. This effectively left Mr Mawby in jeopardy without the help he needed;

(ii) Until just before the end of his evidence on 27 October 2014, nearly six years after Mr Mawby's death, Professor Silburn showed little or no sign of remorse for any of the failings of Mr Mawby's post-operative care and, until then, no sign of sympathy or empathy for the Mawby family. If he now has insight into the failings of his post-operative care it has come very late;

(iii) As I have explained above, I believe that Professor Silburn not only gave sworn evidence concerning the purported handover to Dr O'Sullivan that was objectively untrue, but that he did so with the intention of misleading the court;

(iv) In doing so, he not only failed to take responsibility for the failure of the post-operative plan but he falsely implicated others, especially Dr O'Sullivan, to avoid blame. Not only was this conduct dishonourable but, perhaps more importantly from a safety perspective, it demonstrated an attitude of resistance to learning from adverse experience. Good doctors, like all other good professionals, make mistakes. No one likes criticism especially when they are proud and perform at a high level most of the time. But denial and covering up of mistakes is counter-productive because systemic issues remain unaddressed and can recur. If, as it appears, Professor Silburn lacks the ability to be self-critical and the humility to accept criticism of his professional performance when it falls short of the high standards he has set for himself and his team, that is potentially a significant problem for him, his team and those in his care; and

(v) Although significant changes have now been made to his own personal practice and the practice at Neurosciences Queensland, they were not made as an immediate response to Mr Mawby's death (which would have demonstrated insight and a determination to learn from that experience), but came only much later. This suggests that the changes were made as a result of peer pressure and perhaps the pragmatic realisation that he was likely to receive criticism during this inquest if no changes were made.

129. It was also urged on me by Counsel for the Mawby family that I should refer Professor Silburn to the Queensland Health Ombudsman in respect of the shortcomings in his record-keeping. During the hearing I told his Counsel that I did not propose to make a complaint in respect of his failures to write letters to other clinicians. This was because, belatedly, Professor Silburn has altered his

practice in that respect. It would be unfair to him now to alter my previously stated position.

Conclusion

130. This is not a case about Professor Silburn, although much time and effort has been spent scrutinising his performance as a doctor. This case is primarily about Mr Mawby. But it is also a story about the therapeutic relationship and the need for doctors to respect patients and their lives and concerns.

131. I accept that Professor Silburn was trying to help Mr Mawby and is sorry that Mr Mawby died following the DBS treatment. But more was and is required of him.

132. In his classic little book on the art of medicine, *Proper Doctoring,*[8] the English cardiologist, David Mendel wrote:

> *Almost all great performers, and almost all great professionals too, remain on top form by relentless attention to detail… However distinguished you are, the patient is the star and your role is to serve him. You will leave no stone unturned, from the moment he steps into the consulting room, to do your best for him, as if he were your nearest and dearest… [A] failure in professionalism, even if it results in a cure, should haunt a doctor forever. It happens to most of us, but it happens less often to the more professional, and one must aim at never letting it happen at all.*

133. That is a counsel of perfection, of course, but it is not an impossibly high standard to apply. It is clear that in this case Professor Silburn did not pay "relentless attention to detail" when it came to Mr Mawby's post-operative care. He did not treat the patient as "the star" and he did not serve Mr Mawby or his family well. While I accept that in many respects Professor Silburn has the highest professional standards, in the basic medical task of caring for the patient, he failed in this case.

134. A sudden and unexpected death causes even more intense grief than does an expected natural death. A sudden tragic event can shatter and irreparably alter the structures of the worlds of those who survive the event. So profound can the shock be that believers can lose their religious faith, families disintegrate, couples separate and some may suffer Post Traumatic Stress Disorder or other forms of mental illness. A world that appeared to be safe and to have meaning and predictability can suddenly be transformed into an environment of fearsome but random perils.

135. This needs to be understood by the medical profession. I acknowledge that the sudden and unexpected death of a patient is a blow for the treating doctors – not, of course, of the same magnitude and severity as that suffered by a suddenly bereaved family, but a blow nevertheless. Such a death inevitably causes, or

[8] *Proper Doctoring: A book for Patients and their Doctors,* New York Review Books, NYC, 2013 (1st ed 1984) p.20-21.

should cause, the clinicians to reflect profoundly on their performance as the treating doctors or treating team. And, of course, our expectation is that good doctors will empathise with their patients and their patients' families when things go badly wrong.

136. In another medical classic, John Berger wrote about the therapeutic relationship in times of severe illness and death:[9]

> *What is required of [the physician] is that he should recognise his patient with the certainty of an ideal brother… This individual and closely intimate recognition is required on both a physical and psychological level. On the former, it constitutes the art of diagnosis… On the psychological level recognition means support…*

137. It is, however, a commonplace in the coronial jurisdiction that many cases go to inquest because the clinicians who could answer a shocked and grieving family's questions or allay their fears have failed to do so adequately. A querulous or apparently offhanded attitude to their reasonable demands for information and explanation – a failure to *recognise* the patient and the family – not only compounds the family's distress but tends to heighten any suspicions they may have about the quality of the care and treatment their loved one received. Health-related inquests are very frequently instituted because health professionals and administrators have not communicated well with families concerning an unexpected death. This is such a case.

138. Almost all who saw them or met them during this inquest were impressed by the dignity and humanity and lack of vindictiveness that the Mawby family brought with them. Their desire for answers about Mr Mawby's death was not motivated by vengefulness but by respect for him and a keenness to place their sad experience at the service of the community, to be drawn on to save the lives of others in future.

139. I hope they will feel that, after a long delay, their concerns have been addressed and that they will take some comfort from the knowledge that Neurosciences Queensland has lifted its standards of performance in relation to pre-admission and post-discharge care of DBS patients, at least in part as a result of their desire for a public ventilation of the issues.

140. I also hope that they will accept the sincere and respectful condolences the coronial team and I offer them.

Findings: s 81 of the *Coroners Act 2009*

141. I find that Kenneth Mawby died at Lismore, New South Wales on 5 January 2009 by hanging himself while suffering from a mood disorder in the nature of delirium causing behavioural changes including impulsivity following DBS surgery on 19 November 2008. I also find that this mood disorder persisted from

[9] *A Fortunate* Man, Writers and Readers Publishing Cooperative, London, 1976, pp 69, 73

about 21 November 2008 to the date of his death, and was more likely than not to have been due in significant but unquantifiable measure to the DBS stimulation he was receiving, in combination with the medication he was taking.

Recommendations: s 82 of the *Coroners Act 2009*

(i) I recommend that the Asia-Pacific Centre for Neuro-Modulation / St Andrew's War Memorial Hospital" Model of Care Flow Chart be amended so as to provide that the treating neurologist (in consultation with the neurosurgeon, neuropsychiatrist and DBS nurses) approve the patient for discharge;

(ii) I recommend that the Model of Care Flow Chart be amended so as to provide that it is the responsibility of the DBS nurses (employed by Neurosciences Queensland) to ensure that prior to discharge, specific follow-up appointments with medical practitioners nominated by the treating neurologist to provide follow-up care are made, specific information is given to the patient and family about the follow-up arrangements, and all necessary records are provided to those that will provide follow up care;

(iii) I recommend that a checklist be developed by Neurosciences Queensland for use at St Andrew's War Memorial Hospital, to be completed by the DBS nurses for each patient, to ensure that the steps identified in sub-paragraph (ii) are all attended to prior to discharge;

(iv) I recommend that Neurosciences Queensland and the St Andrew's War Memorial Hospital establish a system to ensure that a copy of the completed checklist be provided to the hospital for inclusion in its patient records; and

(v) I recommend that a card be developed by Neurosciences Queensland for use at St Andrew's War Memorial Hospital, for provision to DBS patients on discharge, setting out contact numbers for the DBS nurses, the neurologist, the neurosurgeon, the neuropsychiatrist and Medtronic, so that patients and their families know whom to contact in the event of a problem.

Magistrate Hugh Dillon
Deputy State Coroner for New South Wales